

WHAT IS CLAIMED IS:

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- 1 A device for controlling a physiological state, comprising:
- a measuring means for measuring an indicator of a physiological state related to arousal or sedation in a patient;
 - an administering means for administering a drug to the patient; and
 - a drug administration control means for issuing a command to the administering means for drug administration when the indicator of the physiological state satisfies specific conditions.
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2. A device for controlling a physiological state according to claim 1, further comprising a means for measuring a patient's blood pressure, and the drug administration control means issues a command to administer a drug when the indicator of the physiological state satisfies specific conditions and the blood pressure is a specific value.
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3. A device for controlling a physiological state according to claim 1, further comprising a first recording means for storing an indicator of a desirable physiological state, wherein the drug administration control means compares the indicator measured by the measuring means and the indicator stored in the first recording means, and, after a decision has been reached that the patient is in a state of sedation, issues a command to administer a drug to the patient which will
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4. A device for controlling a physiological state according to claim 1, further comprising a first recording means for storing an indicator of a desirable physiological state, wherein the drug administration control means compares the indicator measured by the measuring means and the indicator stored in the first recording means, and, after a decision has been reached that the patient is in a state of arousal, issues a command to administer a drug to the patient which will
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5. A device for controlling a physiological state according to claim 1, further comprising a first recording means for storing an indicator of a desirable physiological state, wherein the drug administration control means compares the indicator measured by the measuring means and the indicator stored in the first recording means, and, after a decision has been reached that the patient is in a state of sedation, issues a command to administer a drug to the patient which will

5. A device for controlling a physiological state according to claim 1, wherein the drug administration control means issues a command to carry out drug administration only when a specified period of time has elapsed since the previous administration of the drug.

5 6. A device for controlling a physiological state according to claim 3, comprising a second recording means for storing information concerning the record of drug administration, including at least one of a drug dose, a type of drug, and a time of administration.

10 7. A device for controlling physiological state according to claim 6, comprising a communicating means for communicating with external equipment, the communicating means sending and receiving the information concerning the record of drug administration that is stored in the second recording means to and from the external equipment.

15 8. A device for controlling a physiological state according to claim 6, comprising a third recording means for recording blood pulse waveforms corresponding to a physiological state in which drug administration is necessary, wherein the measuring means measures the blood pulse wave in the body, and the drug administration control means compares the blood pulse waveform measured by the measuring means and the blood pulse waveforms stored in the third recording
20 means, and issues a command to carry out administration of a drug based on the result of the comparison.

sub A2 9. A device for controlling a physiological state according to claim 1, further comprising a means for detecting the output of a drug administration command, determining from the point of this detection whether or not the indicator of
25 physiological state has reached a state which does not satisfy the specified conditions, and providing notification when the indicator of the physiological state has reached a state which does not satisfy the specified conditions.

10. A device for controlling a physiological state according to claim 1, wherein the administering means comprises an infuser of the drug.

11. A device for controlling a physiological state according to claim 1 further comprising a blood pulse detector for detecting a blood pulse cycle of blood sent from the patient's heart, wherein the drug administration control means issues a command to administer a drug to the administering means during the time interval from one blood pulse beat to the next blood pulse beat in synchronization with the blood pulse cycle.

12. A device for controlling a physiological state according to claim 11, wherein the administering means comprises an infuser of the drug.

13. A device for controlling a physiological state, comprising:

a measuring means for measuring an indicator of a physiological state;

a recording means for storing the indicator measured, up until a current point in time;

a control means for determining when a drug is to be administered based on a rhythm of variation displayed by the indicator over a specified period of time, and for outputting a drug emission command at a determined time; and

an administering means for administering the drug in accordance with the drug emission command.

14. A device for controlling a physiological state according to claim 13, wherein the administering means comprises an infuser of the drug.

15. A device for controlling a physiological state according to claim 13, wherein the control means selects a time period in which the indicator is changing according to a specified trend, and outputs a command to administer a drug during the time period.

16. A device for controlling a physiological state, comprising:

a measuring means for measuring an indicator of a physiological state;

a recording means for storing the indicator measured, up until a current point in time;

5 a control means for outputting a drug emission command based on a current indicator of the physiological state and on a rhythm of variation in the indicator over a specified period of time; and

an administering means for administering a drug in accordance with the drug emission command.

10 17. A device for controlling a physiological state according to claim 16, wherein the administering means comprises an infuser of the drug.

15 18. A device for controlling a physiological state according to claim 16, wherein the control means selects a time period in which the indicator is changing according to a specified trend, and outputs a command to administer a drug when the trend of the change differs from a trend demonstrated by the indicator during a past time period.

20 19. A device for controlling a physiological state according to claim 16, wherein the control means selects a specified time period, and outputs a command to administer a drug when the indicator during the specified time period deviates a fixed amount above a moving average for the indicator during the specified time period over a specified period of time.

25 20. A device for controlling a physiological state according to claims 13 or 16, further comprising a means for detecting an output of the drug emission command, determining from the point of this detection whether or not the indicator of the physiological state indicates a first state which does not require emission of a drug, and providing notification when the indicator of the physiological state has reached the first state.

21. A device for controlling a physiological state according to claims 13 or 16, further comprising a first notification means for obtaining an amount of drug administered, and providing notification when the summed value of the administered amount reaches a specified amount.

5 22. A device for controlling a physiological state according to claim 21, comprising a second notification means for monitoring whether or not the emission of the drug is being carried out normally, and providing notification when an anomaly is present.

23. A device for controlling a physiological state according to claim 22, the device being portable, and comprising a battery and operating based on voltage supplied from the battery, and comprising an electricity supply control means intermittently supplying the voltage output from the battery to elements in the device.

24. A device for controlling a physiological state according to claim 23, further comprising a third notification means for providing notification when the voltage output from the battery falls below a specified voltage.

15 25. A device for controlling a physiological state according to claims 13 or 16, further comprising a blood pulse detection means for detecting in a body a blood pulse cycle blood output from a heart, wherein the control means issues a command to administer a drug during a time interval from one blood pulse beat to a next blood pulse beat in synchronization with the blood pulse cycle.

20 26. A device for controlling a physiological state, comprising:

a measuring means for measuring an indicator of a physiological state;

a control means for determining a user's doze state by comparing the indicator of the physiological state with a predetermined standard value, and outputting a warning indicator when a doze state is detected; and

25 a notifying means for warning the user based on the warning indicator output from the control means.

27. A device for controlling a physiological state, comprising:

a measuring means for measuring an indicator of a physiological state;

a recording means for storing the indicator measured over a specified period of time;

5 a calculating means for reading out indicators of the physiological state over a specified period of prior time from the recording means, and calculating the moving average of the indicators;

a control means for determining the user's doze state by comparing the moving average of the indicators with a predetermined standard value, and
10 outputting a warning indicator when a doze state is detected; and

a notifying means for warning the user based on the warning indicator output from the control means.

28. A device for controlling a physiological state according to claims 26 or 27, further comprising:

15 a transfer means for transferring to a vehicle, operated by the user, braking control information for controlling a braking action of the vehicle; and

a braking control means for braking the vehicle in response to the braking control information transferred by the transfer means when the control means has detected a doze state.

20 29. A device for controlling a physiological state according to claims 26 or 27, further comprising an administering means for administering a drug with a stimulating effect in response to said warning indicator output from the control means.

30. A device for controlling a physiological state according to claims 26 or 27,
25 further comprising a means for calculating a level of the user's alertness from a comparison between the indicator and a standard value, and carrying out

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